Appl. No. 10/004,131
Amdt. sent November 29, 2004
Reply to Office Action of August 2, 2004

PATENT

Amendments to the Claims:

Claims 6-16 are currently pending with claims 6-14 and 16 having been amended. This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1 - 5.   (Canceled)

1   6.   (Currently Amended): A storage system comprising:

2   a ~~single pool of~~ set of plural disk drive units;

3   a plurality of controllers coupled to at least one computer via a network; and

4   a connection unit connected between said ~~single pool of~~ set of plural disk drive

5   units and said plurality of controllers, said connection unit configured such that any of said

6   controllers can communicate with any of said disk drive units,

7   wherein each of said plurality of controllers comprises:

8   a first circuit in data communication with at least one computer; and

9   a second circuit in data communication with said disk drive units via said

10   connection unit~~; and~~

11   ~~a data buffer for storing data that is transferred between said first circuit and said~~

12   ~~second circuit~~.

1   7.   (Currently Amended): A storage system according to claim 6 wherein one

2   of said plurality of controllers is a disk controller comprising a first ~~controller~~ circuit accepting

3   access from a computer through a block I/O interface, and another one of said plurality of

4   controllers is a file server comprising a first ~~controller~~ circuit accepting access from a computer

5   through a file I/O interface.

1   8.   (Currently Amended): A storage system according to claim 7 wherein a

2   second ~~controller~~ circuit of each of said plurality of controllers is a fibre channel controller.

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1   9.   (Currently Amended): A storage system according to claim 6 wherein
2   each of said plurality of controllers determines which of said ~~plurality f~~ plural disk drive units is
3   accessible.

1   10.   (Currently Amended): A storage system according to claim 9 wherein
2   each of said ~~plurality of~~ plural disk drive units holds identification information identifying at
3   least one of said plurality of controllers, and each of said plurality of controllers determines
4   which of said ~~plurality of~~ plural disk drive units is accessible based on the identification
5   information held in each of said ~~plurality of~~ plural disk drive units.

1   11.   (Previously presented): A storage system according to claim 10 wherein
2   each of said ~~plurality of~~ plural disk drive units holds said identification information in a specific
3   storage area in the disk drive unit.

1   12.   (Currently Amended): A storage system according to claim 11 wherein
2   each of said plurality of controllers searches identification information in a specific storage area
3   in each of said ~~plurality of~~ plural disk drive units, and determines which of said ~~plurality of~~
4   plural disk drive units is accessible based on the detected identification information.

1   13.   (Currently Amended): A storage system according to claim 12 further
2   comprising a disk pool management unit coupled to said ~~plurality of~~ plural disk drive units and a
3   management console, wherein said disk pool management unit stores identification information
4   identifying at least one of said plurality of controllers into a specific storage area in each of said
5   ~~plurality of~~ plural disk drive units based on an input from said management console.

1   14.   (Currently Amended): A storage system according to claim 12 wherein
2   one of said plurality of controllers is a disk controller comprising a first ~~controller~~ circuit
3   accepting an access through a block I/O interface, and another one of said plurality of controllers
4   is a file server comprising a first ~~controller~~ circuit accepting an access through a file I/O
5   interface.

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6   15.   (Previously presented): A storage system according to claim 12 wherein

7   each of said plurality of controllers performs the determination during system initialization.

1   16.   (Previously presented): A storage system comprising:

2   a single storage pool comprising a plurality of disks;

3   at least one disk controller accepting an access through a block I/O interface, said

4   at least one disk controller comprising a first circuit for communication with a computer, and a

5   second circuit coupled to said storage pool, and a first data buffer used for transferring data

6   between said first circuit and said second circuit;

7   at least one file server accepting an access through a file I/O interface, said at least

8   one file server comprises a third circuit for communication with a computer, a fourth circuit

9   coupled to said storage pool, and a second data buffer used for transferring data between said

10   third circuit and said fourth circuit; and

11   a disk pool connection unit connected to said second circuit, said fourth circuit,

12   and said plurality of disks of said storage pool,

13   wherein each of said disk controller and said file server determines which of said

14   plurality of disks in said storage pool is accessible.